List of Claims:

1-30. (Cancelled)

31. (Original) A system for annealing at least one single crystal blank for use as at least one optical lens, the system comprising:

a heating structure for supplying heat; and

heating means for heating the at least one single crystal blank, using the heat from the heating structure, to an annealing temperature of the blank and for cooling the at least one single crystal blank from the annealing temperature to an ambient temperature substantially without plastic deformations developing in the at least one blank, the heating means including at least a high-thermal-conductivity housing for containing the at least one single crystal blank.

32. (Original) The system of claim 31 wherein the heating means further includes an insulator structure at least partially containing the high-thermal-conductivity housing.

33. (Original) The system of claim 32 wherein the heating means further includes a controller coupled to the heating structure for regulating heat provided by the heating structure to permit annealing of the at least one blank while inhibiting temperature gradients inside the at least one blank from producing plastic deformations.

34. (Original) The system of claim 33 wherein the heating means further comprises temperature sensors coupled to the controller configured to provide indicia of temperatures of the

high-thermal-conductivity housing to the controller and wherein the controller regulates the heat provided by the heating structure in response to the indicia provided by the temperature sensors.

35. (Original) The system of claim 33 wherein the controller inhibits temperature gradients inside each of the at least one blank from producing stresses in excess of about $0.5e^{(990/T)}$ MPa where T is average temperature of each blank in Kelvin.

36-39. (Cancelled)

40. (New) A system for annealing a single-crystal blank for use as an optical lens, the system comprising:

a housing configured to contain the single-crystal blank, the housing being at least partially thermally conductive;

a heating structure configured to receive electricity, convert the electricity to heat, and radiate the heat toward the housing; and

a controller coupled to the heating structure and configured to control amounts of heat provided by the heating structure to the housing to heat the single-crystal blank to an annealing temperature of the blank and, after reaching the annealing temperature, to control amounts of heat provided to the housing such that a temperature of the single-crystal blank decreases from the annealing temperature to an ambient temperature substantially without plastic deformations developing in the blank.

41. (New) The system of claim 40 wherein the heating comprises a high-thermal-conductivity material such that an inner surface of the housing disposed about the single-crystal blank maintains a substantially uniform temperature.

42. (New) The system of claim 40 wherein the controller is configured to control the heating structure such that a surface temperature of the single-crystal blank follows a desired cooling rate schedule.

43. (New) The system of claim 40 further comprising temperature sensors coupled to the controller and disposed and configured to provide indicia of temperatures of the high-thermal-conductivity housing to the controller and wherein the controller is configured to regulate the heat provided by the heating structure in response to the indicia provided by the temperature sensors.

44. (New) The system of claim 40 wherein the controller is configured to inhibit temperature gradients inside the blank from producing stresses in excess of about $0.5e^{(990/T)}$ MPa where T is average temperature of the blank in Kelvin.